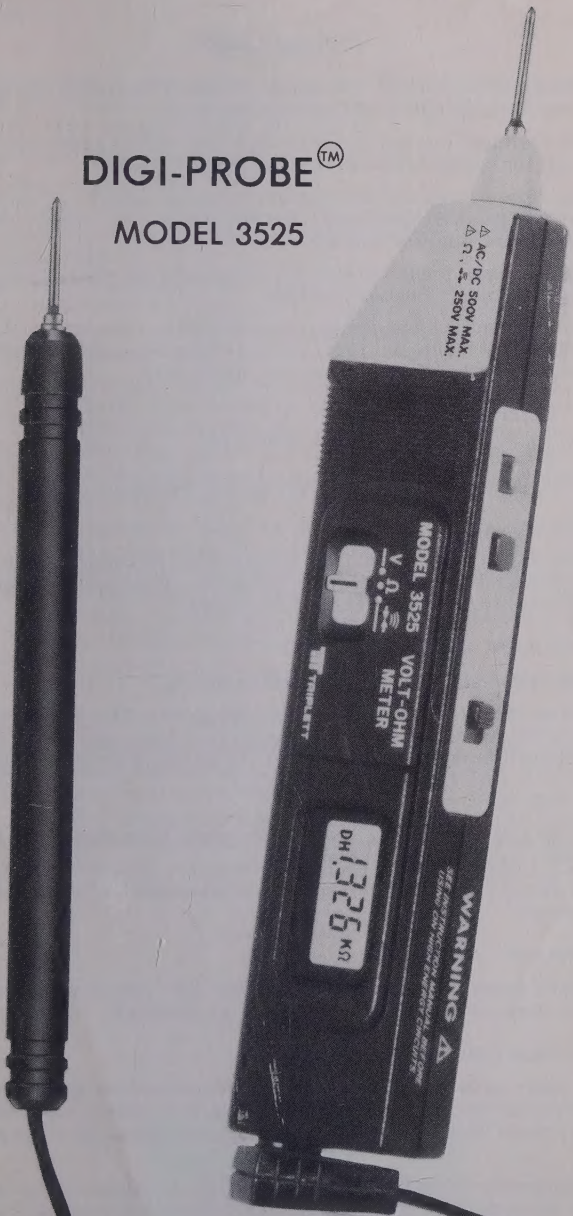
DIGI-PROBE™

MODEL 3525



TRIPLETT®

A *Penril* COMPANY

INTRODUCTION

The Model 3525 Digi-Probe™ volt-ohmmeter is one of the smallest trouble shooting battery operated digital instruments manufactured today.

Its small size, ruggedness and accuracy make it ideal for field service work. It can be carried in the shirt pocket or in a small section of a tool box.

The Digi-Probe is handy and easy to use. Its Autorange capability on volts and ohms eliminates the need for selecting ranges. Once the function is set, all that is necessary to make measurements is to touch and test.

The Digi-Probe also features an instant tone continuity test which makes it ideal for rapid testing of diodes, shorts and continuity.

A Data Hold button has been provided for making tests in dark or close places where it is difficult to view the display. The Hold button holds the reading so it can be read a moment later in a more convenient and better lighted area.

SAFETY RULES

⚠ This symbol means "refer to the operating instructions."

WARNING

This tester has been designed with your safety in mind. However, no design can completely protect against incorrect use. Electrical circuits can be dangerous and/or lethal when lack of caution or poor safety practices are used.

READ THE MANUAL

Read this Instruction Manual carefully and completely.

Voltages within the capability of this test equipment can be hazardous. Follow the instructions in this manual for every measurement. Read and understand the general instructions before attempting to use this tester. Do not exceed the limits of the tester.

SAFETY CHECK

Double check the switch setting, and lead connections before making measurements. Are you following all of the instructions?

Do not connect to circuits with voltage present when switch is in any ohms or continuity position.

DON'T TOUCH

Don't touch exposed wiring, connections or other "live" parts of an electrical circuit. If in doubt, check the circuit first for voltage before touching it.

DISTRIBUTION CIRCUITS PACK A PUNCH

In high energy circuits such as distribution transformers and bus bars, dangerous arcs of explosive nature can occur if the circuit is shorted. If the tester is connected across a high energy circuit when set to a resistance or continuity range, the circuit is virtually shorted.

Special equipment designed for use with these circuits is available. Contact a qualified person for assistance before attempting to make measurements on any high energy circuit.

SAFETY IS NO ACCIDENT

SPECIFICATIONS

DC VOLTS

Ranges: 0 to 2V, 20V, 200V, 500V - automatically selected.
Accuracy: 18° to 28°C - ±0.75% of RDG +2 digits - 2, 20, 200V Ranges.
±1% of RDG +2 digits - 500V Range - Zero Offset - ±1 digit.
Input Resistance: Greater than 10 Megohms on all ranges.
Ranging Response Time: 4 seconds max.
C.M.R.R.: > 90 dB at 60 Hz, > 100 dB at DCV.
N.M.R.R.: > 40 dB at 60 Hz.
Overload Limit: 750 VDC for 1 minute.

AC VOLTS

Ranges: 0 to 2V, 20V, 200V, 500V - automatically selected.
Accuracy: 18° to 28°C - ±1.25% RDG +4 digits all ranges.
Zero Offset - ±1 digit.
C.M.R.R.: > 60 dB at 60 Hz.
Frequency Response: 40 to 500 Hz.
Input Resistance: Greater than 10 megohms on all ranges.
Type of Detection: Average responding - Calibrated RMS on Pure Sine Wave.
Ranging Response Time: 5 seconds max.
Overload Limit: 530V RMS or 750V Peak for 1 minute.

RESISTANCE

Ranges: 0 to 2k, 20k, 200k, 2000k ohms - Will read to 2999k ohms in Over range - Automatically selected.
Accuracy: 18° to 28°C - ±0.75% RDG +3 digits on 2k, 20k, 200k Ranges.
±1.25% RDG +3 digits on 2000K Range - Zero Offset < 2 digits.
Ranging Response Time: 5 seconds max.
Overload Limit: 250 VAC or DC for 1 minute.
Open Circuit Voltage: 0.45 Volts max. all ranges.

CONTINUITY

Range: One - Indication below 1.5k to 15kΩ, typically 4kΩ.
Indication: Tone 4 kHz and on LCD.
Response Time: Less than 1 msec.
Overload Limit: 250 VAC or DC for 1 minute.
Open Circuit Voltage 1.5V: Shorted test current approximately 0.5 mA.

TEMPERATURE COEFFICIENTS

All ranges and functions - 0° to 18°C and 28° to 40°C.
.04% RDG ±0.3 digit per degree C.

GENERAL

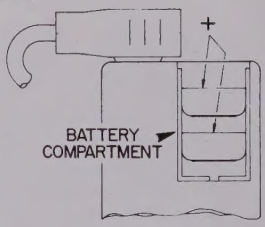
Operating Temperature: 0 to 40°C.
Storage Temperature: −20°C to +60°C.
Batteries: (2) 1½V Button - NEDA 1107SO Silver Oxide or NEDA 1166A Alkaline.
Battery Life: 100 hours typical Silver Oxide, 70 hours Alkaline.
Display: 3.5 Digit LCD, 5MM Height, 1999 Counts
Annunciators: Decimal Point, V, KΩ, BATT, −, AC, DH and .
Battery Low Indication: "BATT" - displays when each battery falls below 1.25 Volts.
Over Range Indication: MSD "1" Blinks except 500V AC or DC ranges.
Data Hold ("DH"): When depressed will hold all readings except Continuity Function.
Audible Tone: Sounds as operating Function or AC/DC switch, sounds as range changes automatically in V function, sounds in continuity function when less then threshold level.
Polarity: Autopolarity, minus sign indicates negative polarity, No plus sign, implied.
Size: 6⅜" long 1⅛" wide ¾" deep (162 mm x 28 mm x 20 mm).
Weight: 2½ oz. (0.07 kg.)

ACCESSORIES

Carrying Case (Pocket Type), Part No. 10-3177
Common Test Lead Assembly, Part No. 79-562
Digi-Probe Tip, Part No. 79-561

OPERATING INSTRUCTIONS

BATTERY INSTALLATION



A. Remove Common plug.
B. Insert screw driver in slot at end of Probe body. Turn driver to open battery cover.
C. Insert two button batteries being careful to observe polarity. When facing compartment with probe tip down, insert both batteries with (+) sign up (see diagram).
D. Replace battery cover and Common plug.

AC OR DC VOLTS MEASUREMENTS

WARNING

Maximum input voltage is 500 Volts AC or DC. Do not attempt to measure voltages above 500 Volts. Before making measurements on High Energy circuits such as Bus or Distribution Transformers read the Safety Rules in this Instruction Manual!

A. Insert Common plug test lead into end of Digi-Probe body.
B. Set Power switch to "ON."
C. Set Function switch to V position.
D. Depress AC-DC button to appropriate function. Depressing the button will alternate AC and DC functions for each depression. When AC is selected the lettering AC will appear on the LCD. The absence of AC on the LCD indicates the function is set to DC Volts.
E. Connect or contact Common lead to ground or low side of circuit under test. Connect Digi-Probe tip to voltage point to be measured. The Digi-Probe will automatically select the range. Read the voltage on the LCD.
F. Data Hold: If operator wishes to hold the reading on the LCD, the DH Button is depressed while the measurement is being made. DH will appear on the LCD. To cancel the Hold function the DH Button is depressed again and released. The DH indication will turn off.
G. Audible Tone: Sounds as operating function or AC/DC switch. Sounds as range changes automatically in V function.

RESISTANCE MEASUREMENTS

WARNING

The maximum overload input voltage to the Ohms range is 250V, AC or DC. Before making any resistance measurements, remove power from circuit being tested and discharge all capacitors in circuit.

A. Insert Common plug test lead into end of Digi-Probe body.
B. Set power switch to "ON."
C. Set Function selector to Ω position, an over range indication 1000KΩ will appear on the display with the most significant digit "1" blinking.
D. Connect or contact firmly, Common test probe and Digi-Probe tip to resistor under test. The Digi-Probe will automatically select the proper resistance range. Read resistance value on the LCD.
E. Data Hold: To hold the reading on the display, the DH Button is depressed while the measurement is being made. DH will appear on the LCD. To cancel Hold function the DH button is depressed again and released. The DH indication will turn off.

Note: The normal resistance range is 0 to 2000kΩ, however in an over range condition the Digi-Probe will read to 2999kΩ. In this condition with a reading of 1XXX and the most significant digit "1" blinking, the blinking "1" can be interpreted as a 2. This condition is only valid on the highest 2000kΩ resistance range.

WARNING

The maximum overload voltage of the Continuity test is 250V, AC or DC. Before making any continuity measurements remove power from circuit under test and discharge all capacitors.

A. Insert Common plug test lead into end of Digi-Probe body.

B. Set power switch to "ON."

C. Set Function selector to position. With the test leads open (unconnected) the display will indicate a reading approximately equal to the battery voltage in Millivolts (1500).

D. Connect or contact firmly, common test probe and Digi-Probe tip to circuit to be tested. If the circuit has continuity or a resistance of under approximately 4k ohms a 4 KHZ tone will be heard upon contact, and a symbol will appear on the Display.

Note 1: The continuity test can be used to test forward and reverse conduction of diodes. In the forward conduction mode (Digi-Probe tip to Anode, common to cathode) if the forward resistance is less than approximately 4kΩ a tone will be heard. In reverse direction (Digi-Probe tip to cathode and common to anode) if the diode resistance is above approximately 4kΩ **no** tone will be heard.

Note 2: The numerical reading on the display will roughly approximate the voltage drop across the diode in millivolts at a given current. For example a typical forward voltage drop across a germanium diode is approximately 100 to 250 Millivolts and a silicon diode is 400 to 750 Millivolts. Therefore it is possible to determine whether the diode tested in this manner is Germanium or Silicon.

Note 3: The Data Hold switch does not function in the continuity position.

MAINTENANCE

The Model 3525 Digi-Probe multimeter is designed for long reliable service, and therefore should not require any service, other than annual certification of accuracy and good handling and housekeeping procedures.

Batteries: The battery compartment should be inspected occasionally to make certain the batteries have not developed a leak which might result in corrosion of contacts, etc.

Should service be required, contact the Triplett factory. The address and telephone number are listed under the limited warranty.

MP MASTER
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LIMITED WARRANTY

The Triplett Corporation warrants instruments and test equipment manufactured by it to be free from defective material or factory workmanship and agrees to repair or replace such products which, under normal use and service, disclose the defect to be the fault of our manufacturing, with no charge for parts and service. If we are unable to repair or replace the product, we will make a refund of the purchase price. Consult the Instruction Manual for instructions regarding the proper use and servicing of instruments and test equipment. Our obligation under this warranty is limited to repairing, replacing or making refund of any instrument or test equipment which proves to be defective within one year from the date of original purchase.

This warranty does not apply to any of our products which have been repaired or altered by unauthorized persons in any way so as, in our sole judgment, to injure their stability or reliability, or which have been subject to misuse, abuse, misapplication, negligence or accident or which have had the serial numbers altered, defaced, or removed. Accessories, including batteries, not of our manufacture used with this product are not covered by this warranty.

To register a claim under the provisions of this warranty, return the instrument or test equipment to Triplett Corporation, Bluffton, Ohio 45817, transportation prepaid. Upon our inspection of the product, we will advise you as to the disposition of your claim.

ALL WARRANTIES IMPLIED BY LAW ARE HEREBY LIMITED TO A PERIOD OF ONE YEAR, AND THE PROVISIONS OF THE WARRANTY ARE EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES EXPRESSED OR IMPLIED.

The purchaser agrees to assume all liability for any damages and bodily injury which may result from the use or misuse of the product by the purchaser, his employees, or others, and the remedies provided for in this warranty are expressly in lieu of any other liability Triplett Corporation may have, including incidental or consequential damages.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. No representative of Triplett Corporation or any other person is authorized to extend the liability of Triplett Corporation in connection with the sale of its products beyond the terms hereof.

Triplett Corporation reserves the right to discontinue models at any time, or change specifications, price or design, without notice and without incurring any obligation.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

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